

# WINEGARD®

## RoadTrip™

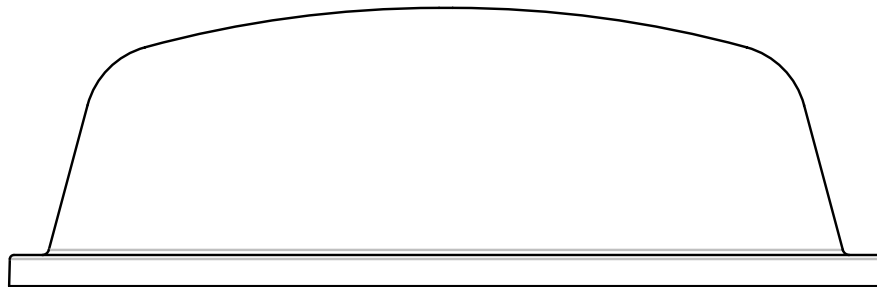
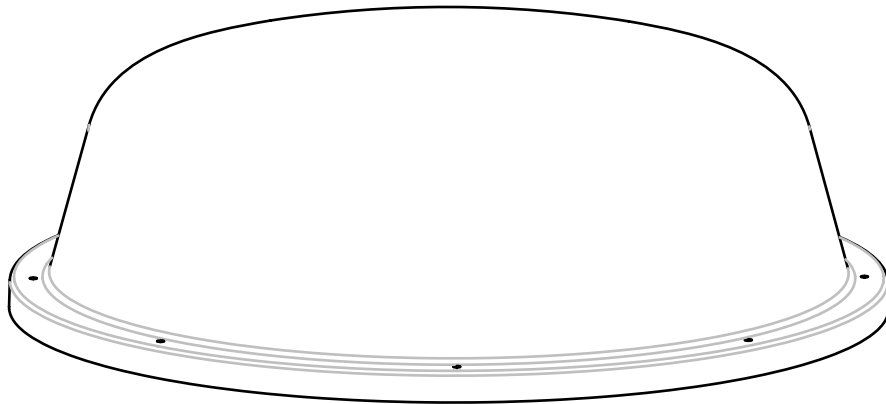
Digital Satellite Mobile Antenna for Two Receivers

RoadTrip™ SD - Stationary Satellite System

RoadTrip™ SDi - In-Motion Satellite System

### OPERATION MANUAL

Made in the U.S.A. U.S. Patents Pending



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# Introduction/How Does Digital Satellite TV Work?

About this manual — We hope this manual will provide clear instructions to install and operate your Winegard mobile satellite system. Two symbols have been used —



Indicates caution should be taken!



Indicates suggestions to make processes easier for you.

## Introduction

Congratulations! You have purchased one of Winegard's latest developments in the mobile satellite reception product line — the RoadTrip. This system, used with your digital satellite receiver, will deliver the best reception possible.

## How Does Digital Satellite TV Work?

Satellite programming originates from an "uplink" facility on Earth — the facility receives many signals from different sources, combines the signals digitally and transmits to the satellites. The satellites (22,300 miles above Earth) receive the uplink signal, amplify it and then transmit it back to earth in the Ku frequency band. This signal is concentrated and reflected to the LNBF\* located at the "focal point" of the dish. The LNBF amplifies and converts the signal to the 950 to 1450 MHz range. The signal is then passed through a coaxial cable to the receiver where individual channel selection and processing take place.

\* Low Noise Block Converter Feed

For Programming information call:

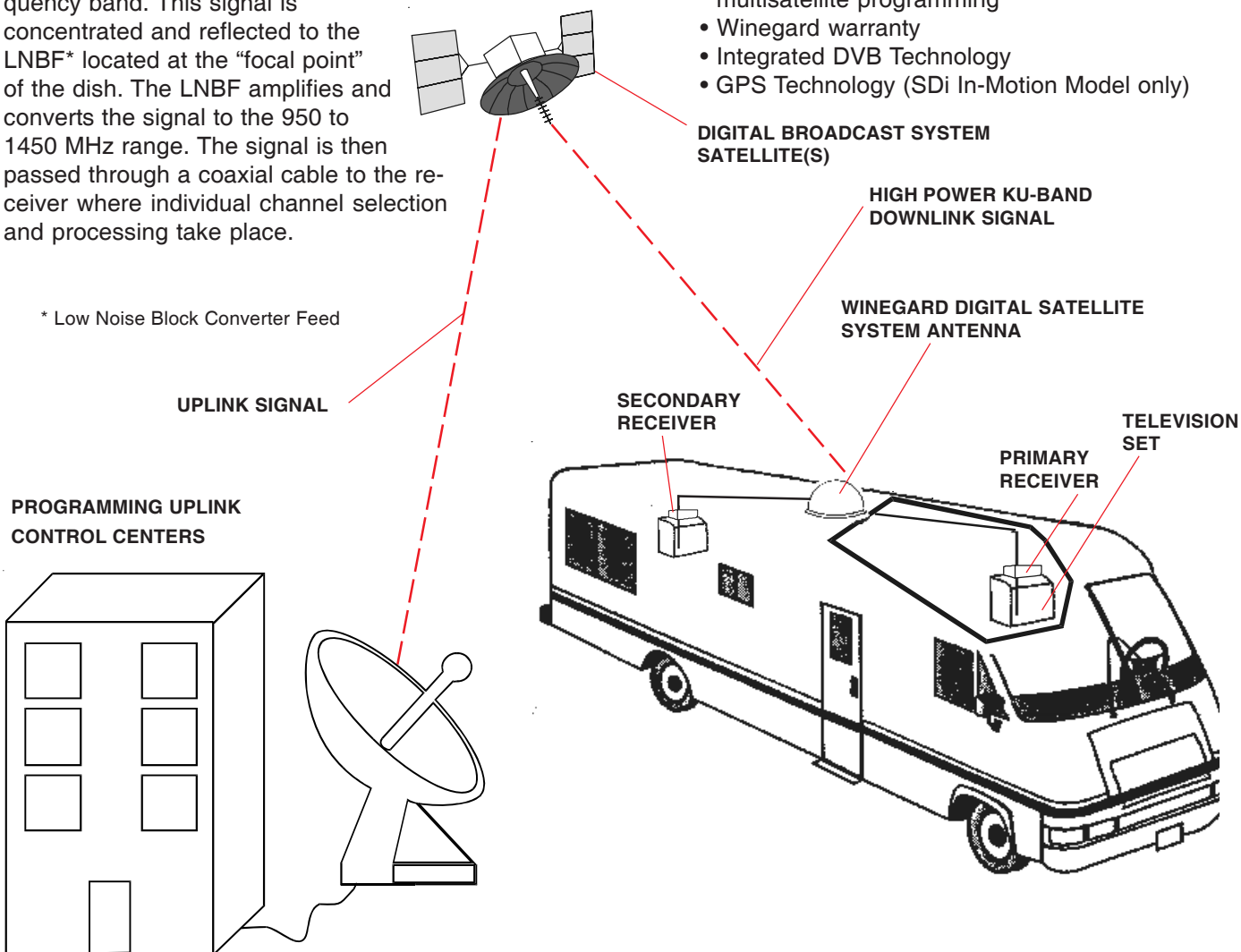
**DISH NETWORK® - 1-800-333-DISH (1-800-333-3474)**

**DIRECTV® - 1-800-DIRECTV (1-800-347-3288)**

Your new Winegard RV Digital Satellite System is an easy-to-use satellite TV reception system. Because it mounts on the top of your recreational vehicle, it goes where you go and provides quality reception of digital satellite signals. Check with your program provider for exact coverage area.

### RoadTrip™ features:

- Two receiver compatible
- Easy "one-button" operation
- Ability to toggle between satellites while Stationary or In-motion using remote control, if subscribing to multisatellite programming
- Winegard warranty
- Integrated DVB Technology
- GPS Technology (SDi In-Motion Model only)



# Quick Reference Guide

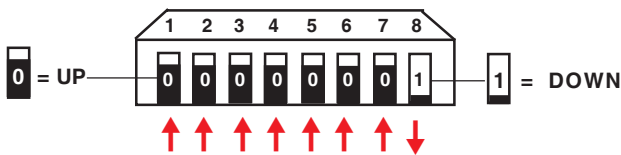
Your Winegard RoadTrip satellite System has been designed to be the most user-friendly Mobile Satellite Antenna on the market today. Upon installation of the antenna, or after changing satellite service provider, simply set the switches inside of the dome to the settings shown below. These switches enable the dish to locate the proper satellite for your service provider, and, for the RoadTrip™ SDi In-Motion system, to be set for the proper installation option. Simply set the switch, and forget it! Your Winegard RoadTrip Satellite Antenna will locate the proper satellite with just the flip of a switch.

## RoadTrip™ SD Notice!

This model is PRESET for DIRECTV® receivers.

If you have a DISH Network® receiver, you must change the numbered switches (see Fig. 1a).

FIGURE 1A



(#1 represents Switch DOWN; #0 represents Switch up)

Sat. Rcvr.	Mt. Option	Switch Set Position							
		1	2	3	4	5	6	7	8
DIRECTV	A	0	0	0	0	0	0	0	1
(FACTORY PRESET)									
DISH NETWORK	A	0	0	0	1	0	0	1	1

**SWITCH SETTINGS SHOWN**

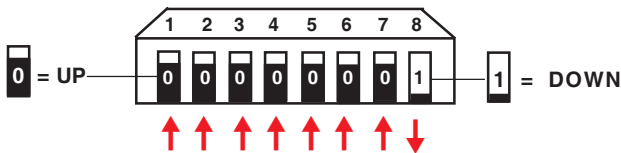
0= UP 1= DOWN

## RoadTrip™ SDi Notice!

This model is PRESET for DIRECTV® receivers Mounting Option A.

If you have a DISH Network® receiver, or if you choose Mounting Option B, you must change the numbered switches (see Fig. 1b and 1c).

FIGURE 1B



(#1 represents Switch DOWN; #0 represents Switch up)

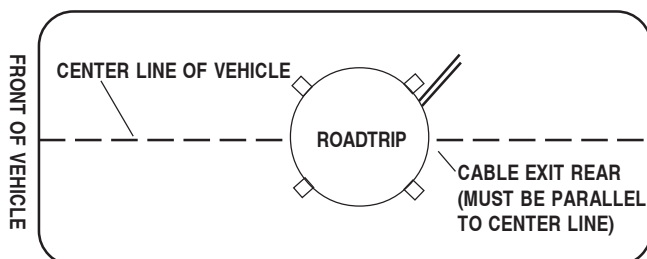
Sat. Rcvr.	Mt. Option	Switch Set Position							
		1	2	3	4	5	6	7	8
DIRECTV	A	0	0	0	0	0	0	0	1
(FACTORY PRESET)									
DIRECTV	B	1	0	0	0	0	0	0	1
DISH NETWORK	A	0	0	0	1	0	0	1	1
DISH NETWORK	B	1	0	0	1	0	0	1	1

**SWITCH SETTINGS SHOWN**

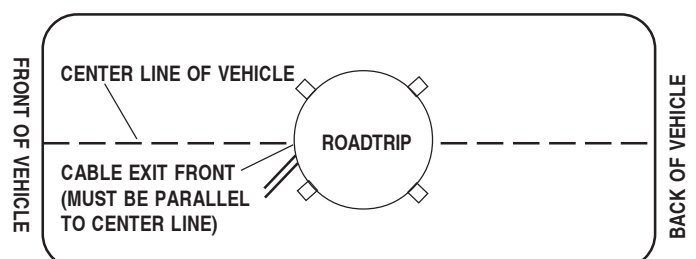
0= UP 1= DOWN

FIGURE 1C

### MOUNTING OPTION A



### MOUNTING OPTION B



## **Operation RoadTrip™ SD (VEHICLE MUST BE STATIONARY!!)**

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**1. Turn on receiver and television set. The RoadTrip™ must be connected to a receiver that is plugged into 120 VAC.**

**2. Verify that you are getting the receiver's** menu screens on the television. These screens are available with or without the dish finding the signal.

**3. Turn the power switch on for the RoadTrip™.** The dish will detect if it is already on a satellite signal. If it detects a signal, the dish will move to check its alternate satellite and then move back to the original satellite signal that is on.

4. If no signal was detected, the dish will begin its search to locate the primary satellite. Once the dish locates a signal, it will pause long enough to identify which satellite it has located. This may or may not be visible on your receiver's point dish screen.

5. After the unit has verified that it has the correct satellite, it will move to check the alternate satellite and move back to the primary satellite to complete the search routine.

**6. If you do not have signal, see *Troubleshooting*, p.7.**

**NOTE: Because the RoadTrip™ uses information from the last location that it was on a signal, satellite acquisition may take longer if the dish is inactive over long distance traveling.**

**DirectTV® must be set to the “two” satellite, oval dish setting. Refer to your receiver manual.**

**DISH Network® receivers must have the check switch set to “SW42”. See page 6.**

# Operation RoadTrip™ SDi (In-Motion System)

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1. Turn on receiver and television set. **The RoadTrip™ must be connected to a receiver that is plugged into 120 VAC.**

2. **Verify that you are getting the receiver's** menu screens on the television. These screens are available with or without the dish finding the signal. See page 6 for details of receiver set up.

3. **Turn the power switch on for the RoadTrip™.** The dish should start moving, making one or two revolutions before it stops to acquire GPS. This can take a few moments or up to 10-15 minutes. **Normal operation will be less than a minute.**



You may be Stationary or In-Motion during power up.

4. **Once the unit has acquired GPS the dish**

**will begin its search.** The dish will pause on the signal long enough to determine which satellite it has found. If it moves off the signal, it is in an effort to verify the signal and it should return to the signal shortly.

5. After the unit has verified that it has the correct satellite, it will continue to track the signal.

6. If the vehicle does not move for six minutes, the unit will toggle to its alternate satellite then toggle back to the primary satellite and go to sleep. If vehicle begins movement in straight line at 10 mph, the unit will resume tracking mode. See below for details of modes of operation.

7. **If you do not have signal, see *Troubleshooting*, p.6.**

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## Modes of Operation:

The RoadTrip™SDi In-Motion satellite system has the two modes of operation: **Tracking Mode** and **Sleep Mode**. Whether stationary or In-Motion during satellite signal acquisition, the unit enters **Tracking Mode**. In this mode, the unit will actively follow the satellite as the vehicle travels, even if the vehicle is stationary. Tracking mode ends when the RoadTrip™ has successfully finished its search and the vehicle has not moved for six (6) minutes. Your RoadTrip™SDi will resume tracking mode if it detects movement in a straight line at 10 mph or more.

**Sleep Mode** is the unit at rest. The RoadTrip enters **Sleep Mode** six (6) minutes after a successful search if stationary, or six (6) minutes after the vehicle stops moving.

## Recovery From Signal Interruption:

**While traveling, the signal will be interrupted when the line of sight to the satellite is blocked.** Signal is acquired again after line of sight is restored. If signal is interrupted for more than 15 seconds, the system automatically enters the search routine. **The length of time for the TV picture to recover depends on the receiver model you are using.**



Must drive in straight line at 10 mph or more when starting to operate in motion.

## Toggle In-Motion:

Your RoadTrip satellite system will automatically toggle between the primary and alternate satellite for your service provider. For toggling In-Motion, you **may** notice a slight delay in satellite switching which could cause a loss in picture. This is normal, picture loss should be no longer than three seconds. **If the alternate satellite the RoadTrip is trying to toggle to is blocked for more than 25 seconds, the system automatically enters the search routine.**



Use your on screen guide to locate your channel rather than "channel surfing". This will result in smoother operation.

## To toggle between satellites when subscribing to multi-satellite programming—

The RoadTrip™SD and SDi will toggle between the primary and secondary satellites for either DISH Network or DIRECTV. Both have programming on more than one satellite. When a channel is selected on the remote control and is not on the satellite currently selected, the unit will automatically toggle to the correct satellite.

**Note: The RoadTrip™SDi will toggle while stationary or In-motion.**

### DIRECTV programming

1. DIRECTV receivers must be set for oval dish 2 sat selection to enable toggling between primary 101°W satellite and alternate 119°W satellite only. (Consult receiver manual for procedure.) After receiver is set for the correct dish selection, when you request a channel located on a different satellite, the unit will automatically toggle to that satellite.

### DISH Network programming (DISH 500)

DISH Network receivers must have the “SW42” switch installed in order to toggle between the primary 119° satellite and the alternate 110° satellite. (Consult your receiver manual for the procedure to reach the “check switch” menu.)

**NOTE: This “SW42 Switch” is a DISH Network® receiver setting, NOT a physical part.**

**To install the “SW42” switch:**

1. Before turning on your RoadTrip™ system, make sure that your satellite receiver and television are turned on and your receiver is on the “point dish” menu. (Consult your owner’s manual to reach this menu.)

2. While the vehicle is stationary, turn on the RoadTrip™ system and wait for signal acquisition on satellite 119°.

**3a. RoadTrip™ SD.** Wait for unit to acquire signal on 119°. Proceed to Step 4.



SW42 switch cannot be installed while RoadTrip™ SDi is in **Tracking Mode**.

**3a. RoadTrip™SDi. Unit MUST be Stationary!** After signal is acquired on satellite 119°, the system will continuously track the signal for six minutes. At the end of six minutes, the unit will enter sleep mode (see page 5). Proceed to Step 4.

4. You now have six minutes to complete Check Switch test. Consult your receiver manual for in-

structions on running the test. Be sure that Superdish and Alternate are unchecked if applicable. Onscreen options may vary by receiver.

5. During the Check Switch Test, the receiver will begin checking the switch by toggling between satellites. When this is completed, SW42 will appear on the screen. It will be at the top of the screen, satellite designations will be below, showing odd and even transponders. See illustration.

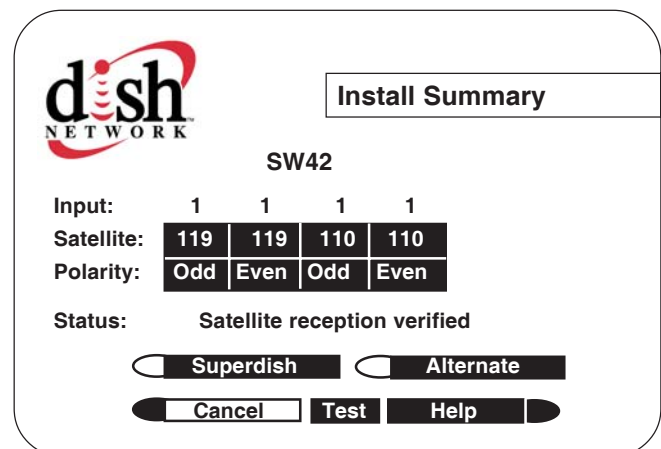
**If a switch other than SW42 appears, or you have an X in one of the boxes below the satellites, repeat Check Switch Steps.**

6. Your system is now set up to toggle between satellites. It will automatically move to the correct satellite when a channel is selected with your remote control.

**NOTE: Once these steps are completed, you won’t have to perform this test again, unless Check Switch was performed on another satellite dish, such as a home dish.**



**Toggle:** Your Winegard automatic satellite dish will move from the primary to the alternate satellite in order to receive multi-satellite programming.



Check Switch screen display

**NOTE: Be sure the “Superdish” and “Alternate” boxes ARE NOT checked.**

## PROBLEM

## SOLUTION

The RoadTrip™ does not attempt to find a satellite or it never moves.

1. Check your Power switch to verify that it is in the **ON** position.
2. Check +12 V wires at unit to verify power.
3. Check fuse on electronics.

The dish never stops on any of the signals that it sees.

1. Make sure that your receiver is set up correctly.  
For DISH Network, the check switch should read either “**Unknown**” or “**SW42**”.  
For DirecTV the receiver should be set for a **Two Satellite Oval Dish**.
2. **Make sure the primary coax cable from antenna is ran to “satellite in” on back of your receiver and all coax fittings are made properly.**

With DIRECTV, the dish will find the alternate satellite but it never finds the primary satellite.

Make sure that the Switches on the Electronics Control Box are set for DirecTV. See page 3. These switches are found under the dome, inside the Electronics Control Box.

I am not getting all the DISH Network channels I subscribed to.

1. Go to the check switch menu in receiver. Make sure that it's set for SW42 and lists both even and odd transponders on satellites 110° and 119°.

The RoadTrip™ never sees any signals, it just keeps searching.

1. Rain, Snow or excessive Dew on the dome can interrupt the signal. Snow and Dew can be brushed off the dome. If Heavy rain or Snow fall is blocking the signal, it may be necessary to wait until the weather clears.
2. Check to see if the Southern sky is clear. Trees, Buildings, Large signs or an Overpass can block the signal. Find an area where you can be sure that this is not the problem and try again.
3. Make sure the receiver has power and the satellite dish is connected to the “Sat In”.

I have switched satellite service providers. How do I set my dish for my new provider?

You will need to remove the dome, and set switches to correct provider. See page 3.

The RoadTrip™ SDi will lock onto the proper satellite signal, but loses signal frequently while In-Motion.

1. Obstructions, such as overpasses or thick tree lines will cause RoadTrip to lose signal.
2. Verify the switch settings, for the correct mounting option have been chosen.
3. RoadTrip™ SDi has 720° motion. Cable must unwrap, causing you to lose signal briefly, if cable wrap limit is reached.

My receiver appears to be locked up. I cannot get any response from it.

1. Power off receiver and turn back on.
2. Hold in power button on receiver for three seconds and release.
3. Unplug receiver from outlet for 20 seconds and plug back in.

## Appendix A Satellite Coverage Maps and Receiver Compatibility

### A.1 DISH NETWORK

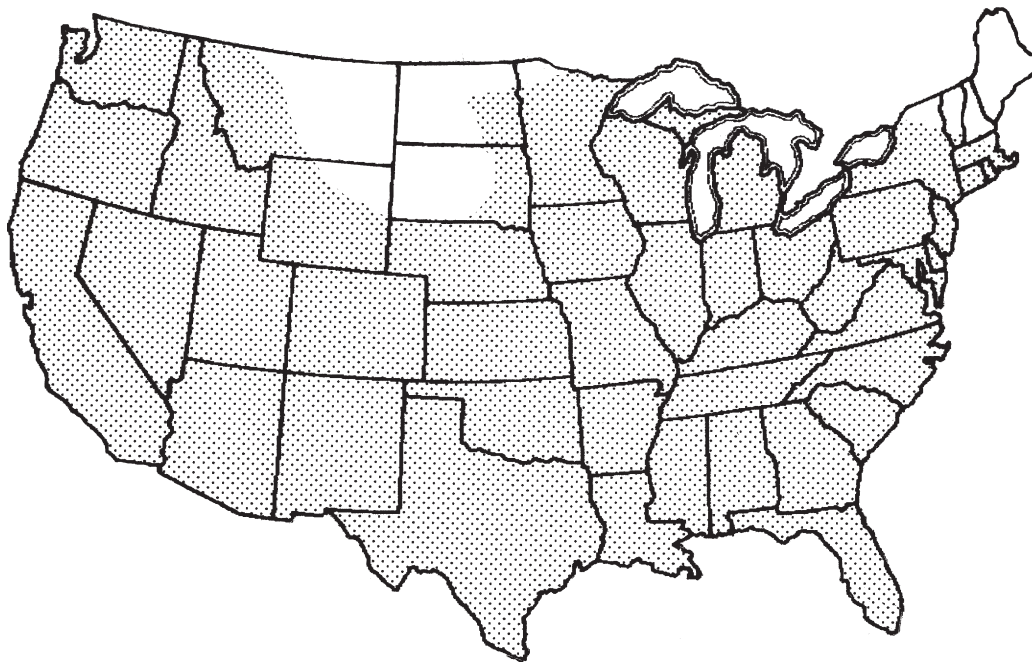
The RoadTrip™ SD and™ SDi will operate with most DISH Network receivers. The antenna will locate and continually track both satellites 119° and 110°.

**Winegard does not recommend using receivers with hard drives not recommended by the manufacturer for mobile applications. Winegard recommends using a standard DISH Network receiver.**

The RoadTrip will not operate in areas where satellite 119° and 110° is not available.

Refer to **Fig A.1.1** for an operational coverage map for satellite 119° and 110°. Satellite coverage maps are based on level, stationary operation. **When tracking with the RoadTrip, road grades, hills, on and off ramps and other inclines, may effect the operation when slope is severe, or when approaching fringe areas of operation. Reception interruption may also occur during adverse weather conditions.**

Fig A.1.1 DISH Network satellites 119 and 110 coverage area (Dotted area indicates coverage).\*



\*Coverage maps are for reference only and do not guarantee coverage.



## A.2 DIRECTV

The RoadTrip™SD and™SDi will operate with most DIRECTV receivers. The antenna will locate and continually track satellites 101° and 119°.

**Winegard does not recommend using satellite receivers with hard drives not recommended by the manufacturer for mobile applications. Winegard recommends using a standard DIRECTV receiver.**

RoadTrip will not operate in all areas satellites 101° and 119° are available. Refer to **Fig A.2.1** for an operational coverage map of satellite 101° and to **Fig A.2.2** for an operational coverage map of 119°. Satellite coverage maps are based on level, stationary operation. **When tracking with the RoadTrip antenna, road grades, hills, on and off ramps and other inclines may effect the operation when slope is severe, or when approaching fringe areas of operation. Reception interruption may also occur during adverse weather conditions.**

Fig A.2.1 DIRECTV satellite 101° RoadTrip coverage map (Dotted area indicates coverage).\*

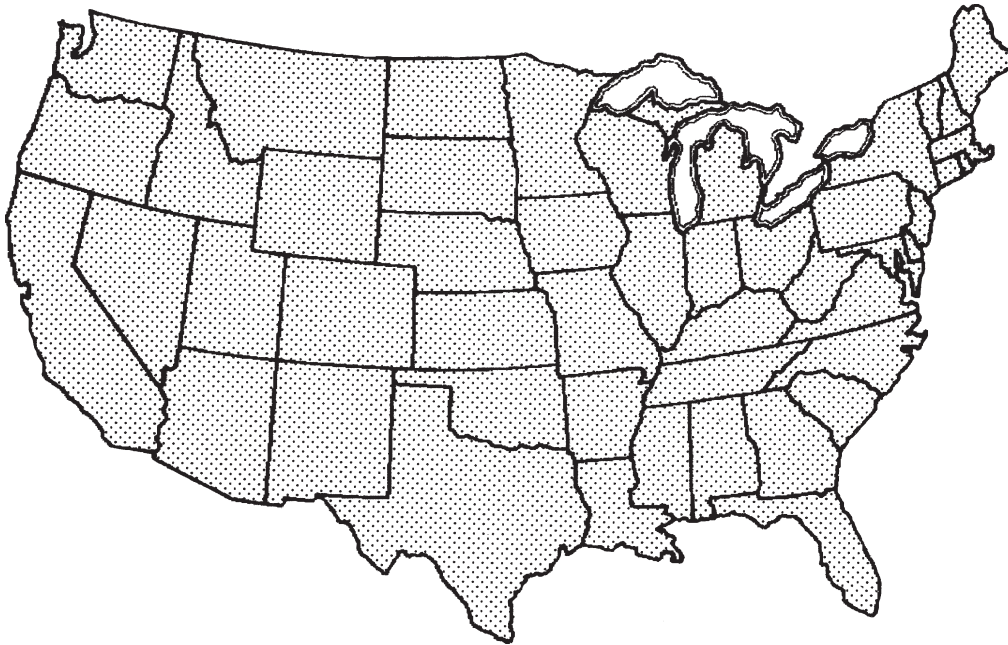
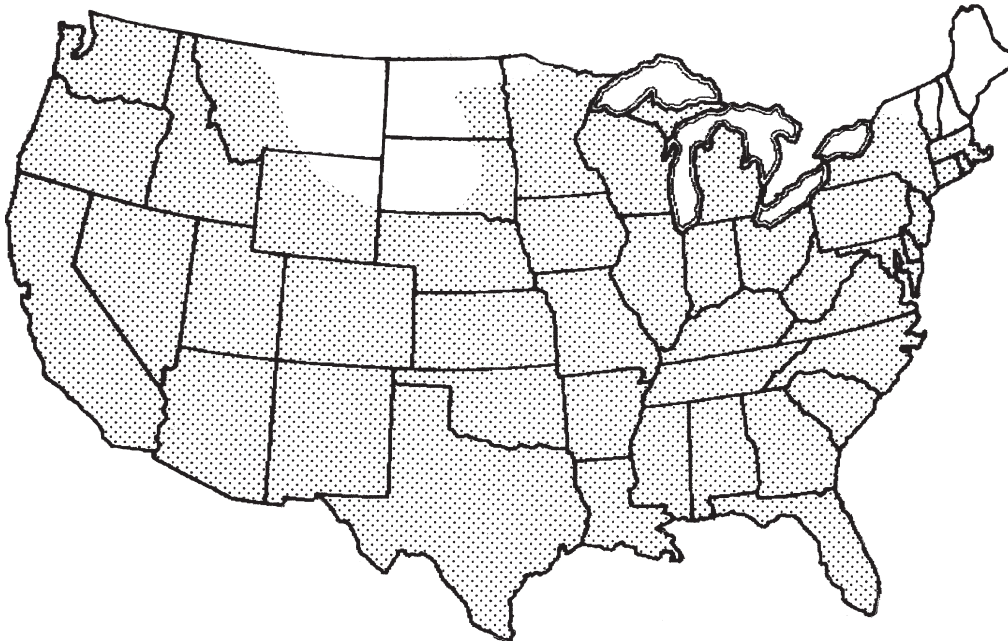


Fig A.2.2 DIRECTV satellite 119° RoadTrip coverage map (Dotted area indicates coverage).\*



\*Coverage maps are for reference only and do not guarantee coverage.





## Features and specifications

- One button operation.
- Dual receiver capable.
- Depending on receiver type, you can access satellites 119°, 110°, or 101°.
- No user input required.
- Elevation range 20° to 60°; azimuth +360° (0-720°)
- Dome UV protected.
- Compact size —  
32" diameter, 12-1/2" height  
Shipping size - 37-1/4" x 34" x 14-3/4"  
Shipping weight - 55 lbs.
- Operating temperature -13°F to +140°F
- Specifications for max amperage 5.0A
- Specifications for unit operating voltage. -10.5 - 13.8V
- Specifications for supply voltage. 12 - 13.8V

### WINEGARD MOBILE PRODUCTS LIMITED WARRANTY (2 YEARS PARTS; 1 YEAR LABOR)

Winegard Company warrants this product against defects in materials or workmanship for a period of two (2) years from the date of original purchase. During year one (1) of such warranty, Winegard Company will also pay authorized labor costs to an authorized Winegard dealer to repair or replace defective products. No warranty claim will be honored unless at the time the claim is made, Customer presents proof of purchase to an authorized Winegard dealer (to locate the nearest authorized Winegard dealer, contact Winegard Company, 3000 Kirkwood Street, Burlington, Iowa 52601, Telephone 319-754-0600 or visit [www.winegard.com](http://www.winegard.com)). Customer must provide proof of purchase with a dated sales receipt for the Winegard product to verify the product is under warranty. If the date of purchase cannot be verified, the warranty period shall be considered to begin thirty (30) days after the date of manufacture.

If a defect in material or workmanship is discovered, Customer may take the product to an authorized Winegard dealer for service. Customer must provide proof of purchase to verify the product is under warranty. If the product is brought to an authorized Winegard dealer for service prior to expiration of year one (1) of the warranty period and a defect in material or workmanship is verified by Winegard Technical Services, Winegard Company will cover the Winegard dealer's labor charges for warranty service. The Winegard dealer must contact Winegard Technical Services in advance for pre-approval of the service. Approval of the service is at the sole discretion of Winegard Company.

Alternatively, Customer may ship the product prepaid to Winegard Technical Services (located at 3000 Kirkwood Street, Burlington, Iowa 52601, Telephone 319-754-0600). Customer must return the product along with a brief description of the problem and provide Winegard Technical Services with Customer's name, address, and phone number. Customer must also provide proof of purchase to verify the product is under warranty. If the product is returned before the expiration of the warranty period, Winegard Company will (at its option) either repair or replace the product.

This Limited Warranty does not apply if the product has been damaged, deteriorates, malfunctions or fails from: improper installation, misuse, abuse, neglect, accident, tampering, modification of the product as originally manufactured by Winegard in any manner whatsoever, removing or defacing any serial number, usage not in accordance with product instructions or acts of nature such as damage caused by wind, lightning, ice or corrosive environments such as salt spray and acid rain.

#### RETURN AUTHORIZATION POLICY

A Return Material Authorization (RMA) is required prior to returning any product to Winegard Company or Winegard Warranty Services under this warranty policy. Please call our Technical Services Department at (800) 788-4417 or send an e-mail to [warranty@winegard.com](mailto:warranty@winegard.com) to obtain the RMA number. Please furnish the date of purchase when requesting an RMA number. Enclose the product in a prepaid package and write the RMA number in large, clear letters on the outside of the package. To avoid confusion or misunderstanding, a shipment(s) without an RMA number(s) or an unauthorized return(s) will be refused and returned to Customer freight collect.

WINEGARD COMPANY DOES NOT ASSUME ANY LIABILITIES FOR ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, MADE BY ANY OTHER PERSON.

ALL OTHER WARRANTIES WHETHER EXPRESS, IMPLIED OR STATUTORY INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY ARE LIMITED TO THE TWO YEAR PERIOD OF THIS WARRANTY.

In states that do not allow limitations on implied warranties, or the exclusion of limitation of incidental or consequential damages, the above limitations or exclusions do not apply.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion of limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

This warranty gives Customer specific legal rights. Customer may also have other rights that may vary from state to state.

#### SATELLITE RECEIVER WARRANTY:

See manufacturer's limited warranty policy.

Rev. 1/20/06

